



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,699	02/15/2002	Thomas Happe	01MEL1	3524

7590

03/07/2003

Michael G. Petit  
P.O. Box 91929  
Santa Barbara, CA 93190-1929

EXAMINER

PAK, YONG D

5

ART UNIT PAPER NUMBER

1652

DATE MAILED: 03/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/077,699

Applicant(s)

HAPPE, THOMAS

Examiner

Yong Pak

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

Claims 1-20 are pending.

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1, 3, and 10, drawn to DNA encoding a hydrogenase of SEQ ID NO:4, classified in class 435, subclass 252.3.
- II. Claims 2 and 19-20, drawn to a hydrogenase of SEQ ID NO:4, classified in class 435, subclass 190.
- III. Claims 4, 6, and 11, drawn to DNA encoding a hydrogenase of SEQ ID NO:5, classified in class 435, subclass 252.3.
- IV. Claims 5 and 19-20, drawn to a hydrogenase of SEQ ID NO:5, classified in class 435, subclass 190.
- V. Claims 7 and 9, and 12, drawn to DNA encoding a hydrogenase of SEQ ID NO:6, classified in class 435, subclass 252.3.
- VI. Claims 8 and 19-20, drawn to a hydrogenase of SEQ ID NO:6, classified in class 435, subclass 190.
- VII. Claims 13 and 16, drawn to a photosynthetic process for hydrogen production using a microorganism producing Invention II, classified in class 435, subclass 41.
- VIII. Claims 14 and 17, drawn to a photosynthetic process for hydrogen production using a microorganism producing Invention IV, classified in class 435, subclass 41.

Art Unit: 1652

- IX. Claims 15 and 18, drawn to a photosynthetic process for hydrogen production using a microorganism producing Invention VI, classified in class 435, subclass 41.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-VI are patentably distinct because a protein and DNA are different compounds, each with its own chemical structure and function, and they have different utilities. DNA of Inventions I, III and V are patentably distinct as encoding enzymes with different structures, functions, substrate specificities, and utilities. The protein of Inventions II, IV, and VI are patentably distinct as having different structures, functions, substrate specificities, and utilities.

DNA molecule of inventions I, III and V are not limited in use to the production of polypeptide of invention II, IV, and VI and can be used as a hybridization probe, and protein of invention II, IV, and VI can be obtained by a materially different method such as by biochemical purification.

Inventions (I, III and IV) and (VII-IX) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case Inventions I, III and IV can be used to produce the protein of Invention II, IV or VI or to produce antibodies against the proteins.

Art Unit: 1652

Also, the methods of Inventions VII-IX are patentably distinct as employing DNA which encode enzymes with different structures, functions, substrate specificities, and utilities.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper. Because these inventions are distinct for the reasons given above and restriction for examination purposes as indicated is proper.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Pak whose telephone number is 703-308-9363. The examiner can normally be reached on 8:00 A.M. to 4:30 P.M weekdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on 703-308-3804. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Yong Pak  
Patent Examiner

March 5, 2003

  
PONNATHAPU ACHUTAMURTHY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600